



United States  
Environmental Protection  
Agency

Office of Public Affairs  
Region 5  
77 West Jackson Blvd.  
Chicago, IL 60604

Illinois Indiana  
Michigan Minnesota  
Ohio Wisconsin

## Public Comment Period

The U.S. EPA will accept written comments on the Proposed Plan during a 30-day public comment period from May 27 through June 25, 1997.

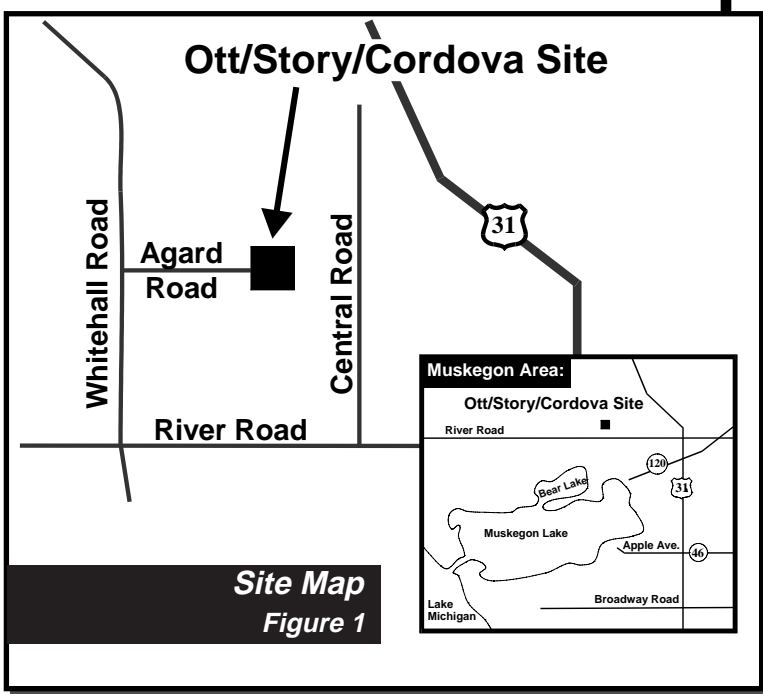
## Public Meeting

The U.S. EPA will hold a public meeting to explain the Proposed Plan and the other cleanup alternatives considered for the Site. Oral and written comments will be accepted at the meeting.

**Date:** Tuesday, June 3, 1997

**Time:** 7 p.m.

**Place:** Dalton Township Hall  
1616 East Riley Thompson Road  
Dalton Township, Michigan



# PROPOSED PLAN

## Ott/Story/Cordova Superfund Site

**Muskegon, Michigan  
May 1997**

## Introduction

This Proposed Plan summarizes the alternatives that have been considered by the United States Environmental Protection Agency (U.S. EPA) for cleaning up contaminated soils and sediment at the Ott/Story/ Cordova Superfund site (the "Site") in Dalton Township, Muskegon County, Michigan (Figure 1). This plan represents a proposed change to the original remedy selected for this portion of the Site, which is known as Operable Unit 3. The original Site remedy was described in the Record of Decision (ROD) issued by the U.S. EPA in September 1993.

Based on changes to the State of Michigan's cleanup standards and the long-term effectiveness of the original remedy, the U.S. EPA has determined that the technology identified in the ROD (Low Temperature Thermal Desorption [LTTD]) would not provide an effective cleanup remedy for contaminated soils and sediment.

<sup>1</sup> Section 117(a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) requires publication of a notice and a Proposed Plan for the Site remediation. The Proposed Plan must also be made available to the public for comment. This fact sheet is a summary of information contained in the Proposed Plan for the Ott/Story/Cordova Site. Please consult the ROD Amendment for more detailed information.

The U.S. EPA is recommending that contaminated soils be excavated and disposed of off Site in an approved landfill. Also, the U.S. EPA is recommending that sediments from Little Bear Creek be monitored.

The original ROD, Feasibility Study, LTTR Remedial Design (RD) and other documents are available in the Administrative Record and Information Repository and should be consulted for details on the development and evaluation of the alternatives considered. This information was used in the evaluation of the alternatives to address soil and sediment contamination at the Site.

Public input on the alternatives and the information that supports these alternatives is an important contribution to the cleanup remedy selection process. The public is encouraged to review and comment on the alternatives presented in this Proposed Plan.

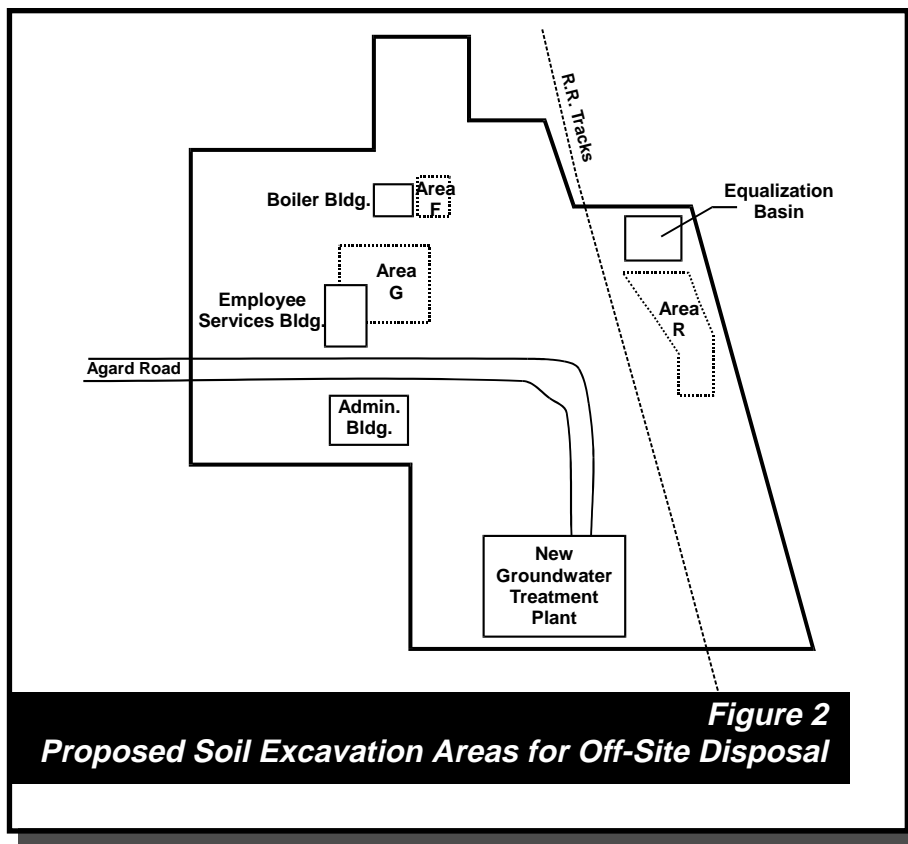
### **Site Background**

The Ott/Story/Cordova Site (the "Site") is located at 500 Agard Road in Dalton Township, Muskegon County, Michigan. The former pro-

duction area, where the majority of the contaminated soils are located, consists of approximately 20 acres and is surrounded by wooded land and a rural residential area. Little Bear Creek and its unnamed tributary are located about one-half mile east of the Site. The Site is a former organic chemical production facility that operated under a series of owners from 1957-1985. Unlined seepage lagoons were used during many years of Site operations for disposal of both industrial wastewaters and residuals from chemical production vessel cleanout. These disposal practices resulted in contamination of an aquifer

below and downgradient of the Site, Site soils, and nearby Little Bear Creek and its unnamed tributary. In addition, thousands of drums of waste material, some of which contained phosgene gas in pressurized containers, were stockpiled on Site.

Cleanup activities were performed between 1977 and 1979 by the Michigan Department of Environmental Quality (MDEQ, formerly the MDNR) with the assistance of the present Site owner, Cordova Chemical Company. These activities included the removal of stockpiled drums and thousands of cubic yards of contaminated soils and



sludge. By this time, a contaminant plume containing at least 90 organic chemicals had migrated approximately one mile off Site to the south-east, contaminating Little Bear Creek, an unnamed tributary, and several private wells. Residents were supplied with bottled water until a municipal water system was installed.

In 1990, the U.S. EPA completed a Remedial Investigation and Feasibility Study, which outlined the nature and extent of the contamination and described the various cleanup alternatives. Two RODs were signed in 1990 to address groundwater contamination at the Site. The first ROD specified Site groundwater containment by extraction; the second ROD required restoration of the aquifer through additional extraction and treatment at a groundwater treatment plant.

In September 1993, the U.S. EPA signed the third ROD selecting Low Temperature Thermal Desorption (LTTD) as the cleanup method for contaminated soils and sediment at the Site. This is the ROD that the U.S. EPA is proposing to change. Using a mobile LTTD unit, organic contaminants would have

been thermally removed from soils after excavation. Treated soil and other LTTD residue with contamination exceeding acceptable State of Michigan standards would be disposed of off Site in a licensed landfill; treated soils meeting Michigan standards would be used as back-fill in excavated areas.

Following the issuance of the ROD, the U.S. EPA entered into an agreement with the U.S. Army Corps of Engineers (USACE) for procurement and oversight of the mobile LTTD unit. In February 1994, the USACE began to delineate detailed locations, areas, and depths of soils to be excavated and treated. In April 1995, the Pre-Design Report showed those areas of the Site requiring excavation.

In June 1995, the State of Michigan changed its cleanup standards, due to legislative amendments to the Natural Resources and Environmental Protection Act. The change in the cleanup standards significantly decreased the volume of soils to be treated. Also, the long-term effectiveness of LTTD was questioned based on the fact that contaminated groundwater could permeate clean areas during periods of

elevated groundwater levels, potentially re-polluting clean soils.

In July 1995, the U.S. EPA suspended the implementation of the LTTD cleanup remedy. The U.S. EPA decided to review the LTTD cleanup remedy to reconsider its effectiveness with regard to risk reduction and cost.

### ***New Information***

Shortly after the decision to suspend LTTD activity, additional tests were conducted to determine the threats posed by the contaminated soils in light of the newly revised State of Michigan cleanup standards. Sampling and analysis to confirm the concentrations of contaminants, and their mobility and toxicity, were performed and compared to the new Michigan cleanup standards.

The U.S. EPA determined that three areas continue to present the highest risk to human health and the environment, as opposed to the 19 areas identified in the remedial design. The three areas present risks to human health through inhalation (breathing in soil and dust), ingestion (accidentally swallowing soil) and dermal (through the skin)

contact. In addition, some of these areas showed signs of stressed or no vegetation, suggesting risk to the environment.

Sampling and analysis of Little Bear Creek has shown that contaminant concentrations may be high enough to present some potential risk. However, this information was gathered before the operation of the on-Site groundwater extraction and treatment plant; the plant's effect on the quality of Little Bear Creek was unknown. The U.S. EPA and the MDEQ have determined that the extraction wells capture contaminated Site groundwater before it reaches the creek. This may result in a reduction of contaminants without the need for the removal of creek sediments.

### **Summary of Alternatives**

Based on information from initial attempts at LTTD implementation, the RD for the LTTD remedy, the FS and subsequent documents summarizing additional sampling and analysis, the U.S. EPA evaluated the following two alternatives to address the reduced amount of contaminated soils and sediment on Site.

***Alternative 1: Excavation and Off-Site Landfilling; Monitor Little Bear Creek***  
-Estimated Cost: \$5.6 million  
-Estimated Timeframe: 3 to 6 months

This alternative involves excavating three areas within the former Ott/Story production area to remove the threats posed by these soils. The soils would be disposed of off Site in an approved landfill. During excavation, the U.S. EPA will monitor dust and any emissions that may be generated; engineering controls (work slow down, water sprays, foam covers) will be used as needed to insure the protection of public health and the environment.

Instead of removing the Creek sediments and disposing of them with the soils, the U.S. EPA would monitor the quality of the Creek and confirm the reduction of contamination. In the event risks posed by the Creek are not alleviated by the groundwater extraction and treatment system, the U.S. EPA may perform additional cleanup activities in the future.

***Alternative 2: Excavation and Off-Site Incineration; Monitor Little Bear Creek***  
-Estimated Cost: \$10.4 million  
-Estimated Timeframe: 3 to 6 months

This alternative is the same as Alternative 1, except for the method of disposal. Alternative 2 calls for excavated soils to be incinerated off Site.

### **The Next Step**

The U.S. EPA will consider public comments received during the public comment period before choosing a final cleanup plan for the Site. All comments received during the public comment period will be addressed in a document, called a Responsiveness Summary, which will be included in the ROD Amendment. At this point, the U.S. EPA intends to use Federal Superfund monies to carry out this cleanup activity. However, the U.S. EPA may recover these costs at a later date from parties who may be potentially responsible for the contamination at the Site.

## Public Comment Sheet

Your input on the U.S. EPA Proposed Plan for the Ott/Story/Cordova Superfund Site is important. Public comments assist the U.S. EPA in selecting its final cleanup plan.

You may use the space below to write your comments about the U.S. EPA Proposed Plan. Comments must be postmarked by June 25, 1997. If you have questions about the comment period, contact Denise Gawlinski at 312-886-9859 or 1-800-621-8431. Those with electronic communication capabilities may submit their comments to the U.S. EPA via Internet to: [gawlinski.denise@epamail.epa.gov](mailto:gawlinski.denise@epamail.epa.gov)

Tear along dashed line and send your comments to the U.S. EPA.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

Ott/Story/Cordova Superfund Site  
**Public Comment Sheet**

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*Fold on Dashed Lines, Staple, Stamp, and Mail*

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Name\_\_\_\_\_

Address\_\_\_\_\_

City\_\_\_\_\_State\_\_\_\_\_

Zip\_\_\_\_\_



Denise Gawlinski (P-19J)  
Community Involvement Coordinator  
Office of Public Affairs  
U.S. EPA, Region 5  
77 West Jackson Boulevard  
Chicago, IL 60604

**Evaluation Table**  
**Figure 3**

Alternative 1: Off-Site Landfilling		Alternative 2: Off-Site Incineration	
Total Capital Cost	\$4,050,000	Total Capital Cost	\$8,850,000
Annual O&M Cost	\$100,500	Annual O&M Cost	\$100,500
Present Worth of O&M (includes Creek monitoring)	\$1,550,000	Present Worth of O&M (includes Creek monitoring)	\$1,550,000
Net Present Worth of Project (30 Years)	\$5,600,000	Net Present Worth of Project (30 Years)	\$10,400,000

*Both alternatives meet each of the nine evaluating criteria. The U.S. EPA believes that Alternative 1 may represent the best balance of the nine criteria. As a result, the U.S. EPA is recommending Alternative 1, excavation and off-Site landfilling with monitoring of Little Bear Creek. The U.S. EPA believes that the nature of the contaminants and the volume of soils to be excavated does not make incineration a cost effective alternative.*

## Evaluation Criteria

The U.S. EPA used the following nine criteria to evaluate each alternative. The Evaluation Table (Figure 2) compares the alternatives to these criteria.

**1. Overall Protection of Human Health and the Environment** determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.

**2. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)** evaluates whether the alternative meets federal and state environmental statutes, regulations, and other requirements that pertain to the site or whether a waiver is justified.

**3. Long-Term Effectiveness and Permanence** considers the ability of an alternative to maintain protection of human health and the environment over time and the reliability of such protection.

**4. Reduction of Contaminant Toxicity, Mobility, or Volume Through Treatment** evaluates an alternative's use of treatment to reduce the harmful effects of principal contaminants, their ability to move in the environment, and the amount of contamination present.

**5. Short-Term Effectiveness** considers the length of time needed to implement an alternative and the risks the alternative poses to workers, residents, and the environment during implementation.

**6. Implementability** considers the technical and administrative feasibility of implementing the alternative, such as relative availability of goods and services.

**7. Cost** includes estimated capital and operation and maintenance costs, as well as present worth costs. Present worth cost is the total cost of an alternative over time in terms of today's dollars.

**8. State Acceptance** considers whether the state agrees with the U.S. EPA's analyses and recommendations of the RI/FS and the Proposed Plan.

**9. Community Acceptance** will be addressed in the ROD. Community acceptance of the recommended cleanup action will be evaluated after the public comment period and before the record of decision is issued. Public comments and the U.S. EPA responses to those comments will be presented in the responsiveness summary, which will be attached to the record of decision.

## **Additional Information**

If you have questions about the information in this fact sheet or would like additional information about the Ott/Story/Cordova Proposed Plan, please write or call the individuals listed below.

### **U.S. EPA Contacts**

**Denise Gawlinski (P-19J)**  
**Community Involvement Coordinator**  
gawlinski.denise@epamail.epa.gov  
(312) 886-9859

**John Fagiolo (SR-6J)**  
**Remedial Project Manager**  
fagiolo.john@epamail.epa.gov  
(312) 886-0800

**Toll-Free: 1-800-621-8431**  
U.S. Environmental Protection Agency  
77 West Jackson Boulevard  
Chicago, Illinois 60604

### **State of Michigan Contact**

**Dennis Eagle**  
**Project Manager**  
(517) 373-8195

**Michigan Department of  
Environmental Quality**  
Environmental Response Division  
301 South Capitol  
P.O. Box 30426  
Lansing, MI 48909-7926

The Proposed Plan, Community Involvement Plan, fact sheets, and other Site-related information are available for review in the **Site information repositories** at the **Dalton Township Hall**, 1616 E. Riley Thompson Road, Dalton Township, and the **Walker Memorial Library**, 1522 Ruddiman Avenue, North Muskegon. An **Administrative Record** file, which contains the information upon which the selection of the cleanup plan will be based, has also been established at the **Walker Memorial Library**.



# **EPA**

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